



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2013-0770; Directorate Identifier 2011-SW-057-AD]

RIN 2120-AA64

Airworthiness Directives; Eurocopter France (Eurocopter) Helicopters

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for certain Eurocopter Model EC225 LP helicopters. This proposed AD would add a new operating limitation that would require increasing the minimum density altitude flight limitation for helicopters without certain Eurocopter modifications installed. This proposed AD is prompted by a report that flights below a certain density altitude create oscillations in the main rotor which can transfer dynamic loads to the structure, the main gearbox (MGB), and the main servo-control inputs, which could result in subsequent loss of control of the helicopter.

DATES: We must receive comments on this proposed AD by [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments by any of the following methods:

- **Federal eRulemaking Docket:** Go to <http://www.regulations.gov>. Follow the online instructions for sending your comments electronically.
- **Fax:** 202-493-2251.

- Mail: Send comments to the U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590-0001.

- Hand Delivery: Deliver to the “Mail” address between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov> or in person at the Docket Operations Office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the foreign authority’s AD, the economic evaluation, any comments received, and other information. The street address for the Docket Operations Office (telephone 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

For service information identified in this proposed AD, contact American Eurocopter Corporation, 2701 N. Forum Drive, Grand Prairie, TX 75052; telephone (972) 641-0000 or (800) 232-0323; fax (972) 641-3775; or at <http://www.eurocopter.com/techpub>. You may review the referenced service information at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas 76137.

FOR FURTHER INFORMATION CONTACT: Gary Roach, Aviation Safety Engineer, Regulations and Policy Group, Rotorcraft Directorate, FAA, 2601 Meacham Blvd., Fort Worth, Texas 76137; telephone (817) 222-5110; email gary.b.roach@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to participate in this rulemaking by submitting written comments, data, or views. We also invite comments relating to the economic, environmental, energy, or federalism impacts that might result from adopting the proposals in this document. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. To ensure the docket does not contain duplicate comments, commenters should send only one copy of written comments, or if comments are filed electronically, commenters should submit only one time.

We will file in the docket all comments that we receive, as well as a report summarizing each substantive public contact with FAA personnel concerning this proposed rulemaking. Before acting on this proposal, we will consider all comments we receive on or before the closing date for comments. We will consider comments filed after the comment period has closed if it is possible to do so without incurring expense or delay. We may change this proposal in light of the comments we receive.

Discussion

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Union, has issued EASA AD No. 2008-0007R3, dated May 12, 2010, to correct an unsafe condition for Eurocopter Model EC225 LP helicopters that are “not equipped of all three modifications MOD 0726582, MOD 0726477, and MOD 0726583, or, if not equipped of MOD 0726592, or, if equipped with all three modifications MOD 0726606, MOD 0726610, MOD 0726611 and missing accomplishment of MOD 0726632.” EASA advises that the main rotor control linkage

has a coupling between the MGB motion and the main servo-control inputs. According to EASA, in certain flight conditions with increased air density, this design generates “spurious” 14 Hertz control inputs in the main rotor, which, in return, transfer dynamic loads to the structure. These return dynamic loads give feedback to the MGB motion, inducing a continuous vibration phenomenon. EASA states that flight tests have demonstrated that below certain density altitudes, the occurrence of the vibration phenomenon is significantly increased or even diverges, which could lead to the loss of control of the helicopter. EASA advises that Eurocopter has continued to develop modifications (MODs) for correcting the vibrations below certain density altitudes, and therefore, helicopters with the following MODs installed are exempt from the applicability of EASA AD No. 2008-0007R3:

- MOD 0726582 relating to Vehicle Management System (VMS) software version V11.01, MOD 0726583 relating to full authority digital engine control (FADEC) software version V2.4.5 and MOD 0726477 relating to servo-controls with attenuated dynamic response;
- MOD 0726592 relating to new Makila 2A1 engines; and
- MOD 0726632 which allows flight to -6,000 feet density altitude.

To correct this unsafe condition, EASA issued AD 2008-0007R3, which requires revising the Rotorcraft Flight Manual (RFM) to prohibit operation below –2,000 feet density altitude for helicopters without certain modifications installed.

FAA’s Determination

These helicopters have been approved by the aviation authority of France and are approved for operation in the United States. Pursuant to our bilateral agreement with

France, EASA, its technical representative, has notified us of the unsafe condition described in its AD. We are proposing this AD because we evaluated all known relevant information and determined that an unsafe condition is likely to exist or develop on other products of the same type design.

Related Service Information

Eurocopter has issued EC225LP Emergency Alert Service Bulletin (ASB) No. 04A001, Revision 3, dated May 6, 2010, which specifies inserting RFM revision “Normal Revision RN11 (10-04) or later, associated with conditional revision RCe (10-04) or later” into the RFM for helicopters equipped with screen air intakes and inserting “Normal Revision RN21 (10-05) or later, associated with conditional revision RCe (10-04) or later” into the RFM for helicopters equipped with multi-purpose air intakes. Both RFM revisions limit the minimum altitude for flight to –2,000 feet density altitude.

Proposed AD Requirements

This proposed AD would require, within 50 hours time-in-service (TIS), amending the RFM to limit minimum flight altitude to –2,000 feet density altitude.

Differences between this Proposed AD and the EASA AD

The EASA AD specifies a compliance time of 30 days, while the proposed AD requires compliance within 50 hours TIS.

Costs of Compliance

We estimate that this proposed AD would affect three helicopters of U.S. Registry and that the costs to comply with this AD by revising the RFM are negligible.

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs," describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in "Subtitle VII, Part A, Subpart III, Section 44701: General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed, I certify this proposed regulation:

1. Is not a "significant regulatory action" under Executive Order 12866;
2. Is not a "significant rule" under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);

3. Will not affect intrastate aviation in Alaska to the extent that it justifies making a regulatory distinction; and

4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared an economic evaluation of the estimated costs to comply with this proposed AD and placed it in the AD docket.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by Reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

EUROCOPTER FRANCE (EUROCOPTER): Docket No. FAA-2013-0770;
Directorate Identifier 2011-SW-057-AD.

(a) Applicability.

This AD applies to Eurocopter Model EC225 LP helicopters, certificated in any category, except helicopters with the following modifications (MOD) installed:

(1) MOD 0726582, MOD 0726477, and MOD 0726583;

(2) MOD 0726592; or

(3) MOD 0726632.

(b) Unsafe Condition.

This AD defines the unsafe condition as oscillations in the main rotor which can transfer dynamic loads to the structure, the main gearbox (MGB), and the main servo-control inputs, which could result in subsequent loss of control of the helicopter.

(c) Comments Due Date.

We must receive comments by [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(d) Compliance.

You are responsible for performing each action required by this AD within the specified compliance time unless it has already been accomplished prior to that time.

(e) Required Action.

Within 50 hours time-in-service (TIS), revise the Operating Limitations section of the Eurocopter EC225LP Rotorcraft Flight Manual (RFM) by inserting a copy of this AD into Section 2.3 of the RFM, or by making pen and ink changes as follows. Under paragraph 1, Altitude Limits, add the phrase:

“The minimum altitude is limited to –2,000 feet density altitude.”

(f) Alternative Methods of Compliance (AMOCs).

(1) The Manager, Safety Management Group, FAA, may approve AMOCs for this AD. Send your proposal to: Gary Roach, Aviation Safety Engineer, Regulations and Policy Group, Rotorcraft Directorate, FAA, 2601 Meacham Blvd., Fort Worth, Texas 76137; telephone (817) 222-5110; email gary.b.roach@faa.gov.

(2) For operations conducted under a 14 CFR part 119 operating certificate or under 14 CFR part 91, subpart K, we suggest that you notify your principal inspector, or lacking a principal inspector, the manager of the local flight standards district office or certificate holding district office before operating any aircraft complying with this AD through an AMOC.

(g) Additional Information.

(1) Eurocopter EC225LP Emergency Alert Service Bulletin No. 04A001, Revision 3, dated May 4, 2010, which is not incorporated by reference, contains additional information about the subject of this AD. For service information identified in this AD, contact American Eurocopter Corporation, 2701 N. Forum Drive, Grand Prairie, TX 75052; telephone (972) 641-0000 or (800) 232-0323; fax (972) 641-3775; or at <http://www.eurocopter.com/techpub>. You may review the referenced service information at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas 76137.

(2) The subject of this AD is addressed in European Aviation Safety Agency (EASA) AD No. 2008-0007R3, dated May 12, 2010. You may view the EASA AD in the AD docket on the Internet at <http://www.regulations.gov>.

(h) Subject.

Joint Aircraft Service Component (JASC) Code: 2200: Auto Flight System.

Issued in Fort Worth, Texas, on August 29, 2013.

Kim Smith,

Directorate Manager, Rotorcraft Directorate,
Aircraft Certification Service.

[FR Doc. 2013-21724 Filed 09/05/2013 at 8:45 am; Publication Date: 09/06/2013]